

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 2 of 10

Attorney's Docket No.: 16969-020001

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for conducting capillary zone electrophoresis in a capillary, the method comprising:
 - adding sodium dodecylsulfate (SDS) to a first sample to be electrophoresced;
 - injecting the first sample into a first end of said capillary;
 - applying a first voltage differential across said first end of said capillary and a second end of said capillary to cause said first sample to migrate in a medium suitable for capillary zone electrophoresis;
 - adding SDS to a second sample to be electrophoresced;
 - injecting said second sample into said first end of said capillary without rinsing said capillary with ~~hydroxide~~ a cleaning solution intermediate the steps of applying a first voltage and injecting a second sample; and
 - applying a second voltage differential across said first and second ends of said capillary to cause said second sample to migrate in said medium suitable for capillary zone electrophoresis.
2. (Original) The method of claim 1, wherein a concentration of SDS is below its critical micelle concentration of 8 mM.
3. (Currently Amended) A method for conducting capillary zone electrophoresis in a capillary, the method comprising:
 - adding sodium dodecylsulfate (SDS) to a first sample to be electrophoresced;
 - applying a first voltage differential across ends of said capillary to cause said first sample to migrate in a medium suitable for capillary zone electrophoresis;

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 3 of 10

Attorney's Docket No.: 16969-020001

rinsing the capillary with a buffer; adding SDS to a second sample to be electrophoresced; and applying a second voltage differential across ends of said capillary to cause said second sample to migrate, without rinsing the capillary with ~~hydroxide~~ a cleaning solution between application of said first and second voltage differentials.

4. (Currently Amended) A method for conducting capillary zone electrophoresis in a capillary having first and second ends, the method comprising:

providing a sodium dodecylsulfate (SDS)-containing buffer for receiving the first end of the capillary;

applying a first voltage differential across the first and second ends to cause a first sample in said capillary to migrate in a medium suitable for capillary zone electrophoresis;

injecting ~~said a~~ second sample into said first end of said capillary without rinsing said capillary with ~~hydroxide~~ a cleaning solution intermediate the steps of applying a first voltage and injecting a second sample; and

applying a second voltage differential across the first and second ends to cause the second sample to migrate in the medium suitable for capillary zone electrophoresis.

5. (Currently Amended) A method for conducting electrophoresis in a capillary having first and second ends, the method comprising:

injecting into the first end of the capillary a first sample;

subjecting the first sample to electrophoresis in the presence of a buffer comprising sodium dodecylsulfate (SDS), the step of subjecting comprising:

contacting the first end of the capillary with a volume of the buffer; and

applying a first voltage differential across the first and second ends of the capillary;

after application of the first voltage differential, injecting into the first end of the capillary a second sample; and

subjecting the second sample to electrophoresis in the presence of a second buffer comprising SDS, the step of subjecting the second sample to electrophoresis comprising:

contacting the first end of the capillary with a volume of the second

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 4 of 10

Attorney's Docket No.: 16969-020001

buffer; and

applying a second voltage differential across the first and second ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the application of the first and second voltage differentials.

6. (Currently Amended) The method of claim 5, further comprising:

after application of the second voltage differential:

injecting into the first end of the capillary a third sample; and

subjecting the third sample to electrophoresis in the presence of a third

buffer comprising SDS, the step of subjecting the third sample to electrophoresis comprising:

contacting the first end of the capillary with a volume of the third

buffer; and

applying a third voltage differential across the first and second ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the application of the first and third voltage differentials.

7. (Currently Amended) The method of claim 6, further comprising:

after application of the third voltage differential:

injecting into the first end of the capillary a fourth sample; and

subjecting the fourth sample to electrophoresis in the presence of a fourth

buffer comprising SDS, the step of subjecting the fourth sample to electrophoresis comprising:

contacting the first end of the capillary with a volume of the fourth

buffer; and

applying a fourth voltage differential across the first and second ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the application of the first and fourth voltage differentials.

8. (Previously Presented) The method of claim 6, wherein each of the first, second, and third buffers is a borate buffer.

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 5 of 10

Attorney's Docket No.: 16969-020001

9. (Previously Presented) The method of claim 5, wherein a concentration of the SDS in the first and second buffers is less than a critical micelle concentration of the SDS in the first and second buffers.

10. (Previously Presented) The method of claim 5, wherein a ratio of each of the first and second voltage differentials to a length between the first and second ends of the capillary is +200 V/cm.

11. (Currently Amended) A method for conducting electrophoresis in a capillary having first and second ends, the method comprising:

- injecting into the first end of the capillary a first sample;
- subjecting the first sample to electrophoresis in the presence of a buffer comprising a lubricating detergent, the step of subjecting comprising:
 - contacting the first end of the capillary with a volume of the buffer; and
 - applying a first voltage differential across the first and second ends of the capillary;
- after application of the first voltage differential, injecting into the first end of the capillary a second sample; and
- subjecting the second sample to electrophoresis in the presence of a second buffer comprising the lubricating detergent, the step of subjecting the second sample to electrophoresis comprising:
 - contacting the first end of the capillary with a volume of the second buffer; and
 - applying a second voltage differential across the first and second ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the application of the first and second voltage differentials.

Applicant : ChangSheng Lin et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 6 of 10

Attorney's Docket No.: 16969-020001

12. (Currently Amended) The method of claim 11, further comprising:
after application of the second voltage differential:
injecting into the first end of the capillary a third sample; and
subjecting the third sample to electrophoresis in the presence of a third
buffer comprising the lubricating detergent, the step of subjecting the third sample to
electrophoresis comprising:
contacting the first end of the capillary with a volume of the third
buffer; and
applying a third voltage differential across the first and second
ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution
intermediate the application of the first and third voltage differentials.
13. (Currently Amended) The method of claim 12, further comprising:
after application of the third voltage differential:
injecting into the first end of the capillary a fourth sample; and
subjecting the fourth sample to electrophoresis in the presence of a fourth
buffer comprising the lubricating detergent, the step of subjecting the fourth sample to
electrophoresis comprising:
contacting the first end of the capillary with a volume of the fourth
buffer; and
applying a fourth voltage differential across the first and second
ends of the capillary without rinsing the capillary with ~~hydroxide~~ a cleaning solution
intermediate the application of the first and fourth voltage differentials.
14. (Previously Presented) The method of claim 11, wherein each of the first, second,
and third buffers is a borate buffer.
15. (Previously Presented) The method of claim 11, wherein a ratio of each of the
first and second voltage differentials to a length between the first and second ends of the
capillary is +200 V/cm.

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 7 of 10

Attorney's Docket No.: 16969-020001

16. (Currently Amended) A method for conducting electrophoresis, comprising:
subjecting a first sample to electrophoresis within a capillary and in the presence
of sodium dodecylsulfate (SDS); and
subjecting a second sample to electrophoresis within the capillary and in the
presence of SDS without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate
the steps of subjecting the first sample to electrophoresis and subjecting the second sample to
electrophoresis.
17. (Currently Amended) The method of claim 16, further comprising:
after subjecting the second sample to electrophoresis, subjecting a third sample to
electrophoresis within the capillary and in the presence of SDS without rinsing the capillary with
~~hydroxide~~ a cleaning solution intermediate the steps of subjecting the first sample to
electrophoresis and subjecting the third sample to electrophoresis.
18. (Currently Amended) The method of claim 17, further comprising:
after subjecting the third sample to electrophoresis, subjecting a fourth sample to
electrophoresis within the capillary and in the presence of SDS without rinsing the capillary with
~~hydroxide~~ a cleaning solution intermediate the steps of subjecting the first sample to
electrophoresis and subjecting the fourth sample to electrophoresis.
19. (Previously Presented) The method of claim 16, wherein the SDS is present at a
concentration of less than a critical micelle concentration of the SDS.
20. (Currently Amended) A method for conducting electrophoresis, comprising:
subjecting a first sample to electrophoresis within a capillary and in the presence
of a lubricating detergent; and
subjecting a second sample to electrophoresis within the capillary and in the
presence of the lubricating detergent without rinsing the capillary with ~~hydroxide~~ a cleaning
solution intermediate the steps of subjecting the first sample to electrophoresis and subjecting the
second sample to electrophoresis.

Applicant : ChangSheng Liu et al.
Serial No. : 09/757,632
Filed : January 11, 2001
Page : 8 of 10

21. (Currently Amended) The method of claim 20, further comprising:
after subjecting the second sample to electrophoresis, subjecting a third sample to electrophoresis within the capillary and in the presence of the lubricating detergent without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the steps of subjecting the first sample to electrophorsis and subjecting the third sample to electrophoresis.

22. (Currently Amended) The method of claim 21, further comprising:
after subjecting the third sample to electrophoresis, subjecting a fourth sample to electrophoresis within the capillary and in the presence of the lubricating detergent without rinsing the capillary with ~~hydroxide~~ a cleaning solution intermediate the steps of subjecting the first sample to electrophorsis and subjecting the fourth sample to electrophoresis.